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AUTHOR Valine, Warren J.
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ABSTRACT

The purpose of this study was to report long-range effects of group counseling and the college growth experience of students who were identified as underachievers and were enrolled as freshmen during the fall of 1969. Five variables were selected for this study as having possible influence on self-concept: (1) group, (2) education, (3) status, (4) disposition, and (5) employment. A questionnaire and a copy of the Tennessee Self Concept Scale (TSCS) were mailed to 73 of the original participants with 54 returning the TSCS for statistical analysis. Results from the study indicated that students who by definition were underachievers could succeed in a college environment. Evidence indicated that those who attained senior level generally had self-concepts statistically more positive than those who terminated their college experiences prior to graduation. Although the original study showed no significant differences among groups that were counseled, when self-concepts were compared in the present study, there appeared to be both positive and negative effects over time. No consistent pattern emerged identifying those who continued in college as possessing a more positive self-concept than those who terminated. Whether or not a student persists in college, the process of attendance may be viewed as developmental, maturing, and positive. (Author/PC)

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Follow Up Study of Group Counseling with Underachieving College Freshmen

by

Warren J. Valine

Department of Counselor Education

Auburn University

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Running Head: Follow Up Study of Group Counseling

Follow Up Study of Group Counseling with Underachieving College Freshmen

Today's college student population is a more heterogeneous group academically than has been true prior to the era of the open door policy. The college experience tends to hold greater threat to the student who is likely to be less academically prepared and who, in turn, may develop negative attitudes about himself if he is unable to cope adequately with this new experience.

Research has established that part of this heterogeneous college population includes the underachiever (Bednar & Weinberg, 1970; Brown, 1969; Combs, 1964; Serwer & Levy, 1966). The literature reports studies that identify traits of underachievers as those who have potential for success, but who fail to measure up to this potential (Dickenson & Truax, 1966; Gilbreath, 1967; Spielberger, 1964). Lusak (1973) referred to four types of low achievers: (a) students with low achievement but high levels of potential, (b) students with low achievement associated with psychopathology, (c) students with low achievement associated with dysfunctioning of the central nervous system, and (d) students with low achievement associated with low intelligence. Underachievers are frequently associated with his first category.

Utilizing the Tennessee Self Concept Scale (Fitts, 1965), several studies have attempted to measure change in the self-concept of college students. The literature contains few longitudinal studies; yet, it is the variable of time that Wilson, Liles, and Fitts (1973) suggests may be crucial to measuring changes in self-concept. Feldman (1972) recommends

a matched-longitudinal design for students who remain in college. He indicated that "the change in students who start, but do not remain in college are not taken into account. While it is possible to obtain change information from these students, this is rarely done in college studies" (p. 128). Two studies that use the Feldman design to measure students in the college setting are Wilson, Liles, and Fitts (1973) and Goodstein (1967). The study reported here is a matched-longitudinal design that includes data on those who were in college at the time of the study as well as those who had dropped out.

Background

The purpose of this study is to report long-range effects of group counseling and the college growth experience of students who were identified as underachievers and were enrolled as freshmen at Georgia Southwestern College during the fall of 1969. Five variables were selected for the present study as having possible influence on self-concept. The variables are identified under the following labels: (a) Group - as assigned in the original study, (b) Education - number of college years completed, (c) Status - whether or not one transferred from Georgia Southwestern College, (d) Disposition - whether or not person dropped out of college, and (e) Employment - presently employed, including military.

Seventy-three students accepted an invitation to participate in a group counseling experience during their first quarter of college. In the original study (Valine, 1970) these students were randomly assigned to four groups identified as Immediate Feedback (IF), Delayed Feedback (DF), Non Video (NV), and Control (C). Variables used to measure counseling

effectiveness included Predicted Freshman Average Grade (PFAG) compared to the student's Grade Point Average (GPA) at the end of the freshman year. Also, selected scores of the Tennessee Self Concept Scale (TSCS) and the Edwards Personal Preference Scale (EPPS) were used to measure possible self-concept changes. No significant differences were found; however, trends were in favor of the counseled group who received immediate video feedback.

Data presented below include comparisons of students on the five variables: Group, Education, Status, Disposition, and Employment. Data were obtained from a mailed questionnaire, present TSCS scores, and from the office of the Dean of Students at Georgia Southwestern College. Statistical data are reported using a regression analysis with the TSCS and the five selected variables to determine possible significant effects between the variables and self-concept.

Procedure

During the fall of 1969, 73 freshmen identified as underachievers were assigned to three types of group counseling and a control group and Georgia Southwestern College (Valine, 1970). Included in the counseling was the administration of the TSCS. The TSCS consists of one hundred items designed to permit the subject to protray his own picture of himself. A description of the reliability and validity of the TSCS is given in the report of the original study and a complete discussion is in the TSCS Manual (Fitts, 1965).

For the present study a questionnaire and a copy of the TSCS, along with a cover letter, were mailed to the 73 original participants. The letter reviewed the participation of each person in the original study

and requested cooperation of the person by completing the questionnaire and the TSCS and returning them in the enclosed, stamped, addressed envelope. Through the office of the Dean of Students at Georgia Southwestern College, the investigator obtained the latest addresses and telephone numbers of each person. In several instances the available address was that of the parental home.

A follow-up letter was mailed five weeks after the original contact to those who had not responded, requesting participation and offering to mail new material if the original had been misplaced or had failed to arrive. A third contact effort, this time by telephone, was made. In some cases it was necessary to go through parents, whose telephone was the one provided. Subjects were located in distant places, including Alaska and Hawaii. Responses were received from a total of 54 persons for a 75% response. Ten original packets were returned because of inability to deliver or forward. One person was deceased and eight failed to respond after telephone contact had been made at least twice.

TSCS scores were obtained for 54 Ss. Fifty-one Ss returned the completed questionnaire. Forty-three Ss were available for statistical measures using a pre-post TSCS analysis. Eleven of the 54 who took the TSCS for this study did not have pretest data available. Other aspects of analysis include the 54 respondents. For these reasons the n will vary in the reported data, depending on the information provided.

In an attempt to determine which variables would influence changes in self-concept, two regression analyses using the five variables and a third regression with the pretest TSCS as a covariate were analyzed and the results reported. The five variables in the regression are

identified under the following labels: (a) Group - as assigned in the original study, (b) Education - number of college years completed, (c) Status - whether or not one transferred from Georgia Southwestern College, (d) Disposition - whether or not person dropped out of college, and (e) Employment - presently employed, including military.

The positive scores of the TSCS profile are used in the analysis for this study. These scores allow the respondent to indicate his self-perception in three areas: (a) this is what I am, (b) this is how I feel about myself, and (c) this is what I do. These are identified below as Row 1, Row 2, and Row 3. Additional data concerning these three areas are provided in five column scores. The positive score profile of the TSCS includes the Total P Score identified by Fitts (1965) as "the most important single score on the Counseling Form. It reflects the overall level of self-esteem" (p. 2). The other scores on the profile are identified as: Row 1 - Identity, Row 2 - Self-Satisfaction, Row 3 - Behavior, Column A - Physical Self, Column B - Moral-Ethical Self, Column C - Personal Self, Column D - Family Self, and Column E - Social Self.

It was anticipated that the effects of Education and/or Group would be most evident in the regression. Therefore, analysis was applied to the data using the sequence: Education-Group-Status-Disposition-Employment, and a second time using Group-Status-Disposition-Education-Employment. With the Total P of the TSCS pretest as a covariate, significant effects were found on Education, Group, and Status. The .05 level of significance was chosen to reject chance.

Discussion

The regression analysis with the Group variable first in the sequence and Education fourth is shown in Tables 1 through 9. Significant effects

were evident on five of the nine scores, Total P Row 1, Row 3, Column B, and Column E. With Education fourth in the regression sequence, it continued to demonstrate the strongest effects. Apparently, those who continued in college generally felt good about themselves concerning their identity and what they were doing, as well as in their perception of their adequacy and worth in their interactions with others.

Insert Tables 1 - 9 about here

Using the Total P Score of the TSCS pretest as a covariate, the regression analysis shows much stronger evidence of change in the positive profile. These results may be observed in Tables 10 through 18.

Insert Tables 10 - 18 about here

Analysis of the profile indicates that Education, Group, and Status are significant variables. Education is a significant factor on seven of the nine scores. Further analysis of the data isolated those who had completed three years of college and were in their fourth year as demonstrating the greatest positive change. Row 3 (Behavior) indicated significance in a negative direction for those who had terminated college as freshmen. Status was significant on Rows 1 and 3 and on Column A. The data showed that those who did not transfer had the strongest effect on this variable.

The Group variable was significant on Total P, Row 3, Column A, and Column B. There were some confounding effects in these results. The group showing positive effects had the largest number of dropouts, while the group showing negative effects had the largest number of

students in college at the four-year level. This may suggest that, if and underachieving student chooses to drop out of college, his/her self-concept may increase. Subjective data from students on the questionnaire indicated that, as one female stated, "The fall quarter was the only quarter I spent at GSC. I left by failing because I knew of no other way to tell . . . that I was unhappy." Another respondent said, "I had no desire for a college education. Parents made me go those two quarters." Some students may continue in college because of pressures from external sources and, in the process, develop negative feelings toward themselves.

A tentative conclusion that many underachieving students who enroll in college and attain senior standing possess a positive self-concept may be drawn from the above data. There is also evidence that students who are sent to college with apparently little or no motivation may see to it that they drop out of college; yet, in the process, report positive feelings about themselves. The process of dropping out may demonstrate self-asserting behavior providing evidence of positive feelings about self and the ability to make choices. The students who had dropped out of college in this study had been out of college for at least two years at the time they took the TSCS. There had been time to reestablish themselves in a more satisfying environment. A different profile may have been evident at the time of dropout. Others may have dropped out wishing they could continue; thus felt negative about their behavior (Row 3) and developed guilt feelings (Column B) concerning their action. Wilson, et al. stated,

> it is often difficult in test-retest data to differentiate between the reliability of the test and the stability of

> the variable being measured, . . . a given experience like four years of college seldom has a uniform effect upon all participants. Truly adequate research in the broad field of self-concept change requires consideration of where the S begins, or what kind of self-concept he brings into the experience; the success he attains in coping with the experience; and perhaps most of all, the phenomenal meaning of the experience to him. (1973, p. 12)

Perhaps the emphasis of the phenomenal experience is the proper one to make. Whether students dropped out or remained in college, it appears that it is the phenomenal view of the individual that provides positive or negative evaluations.

Wilson, et al. (1973) point out that group data submerges the individual and does not provide a picture of individual changes. In an attempt to counteract this problem, student profiles were analyzed individually with particular attention to the Number of Deviant Signs (NDS) score. Fitts (1972) explained that "The NDS Score summarizes the deviant features in the self-concept (scores exceeding the normal limits and deviant fluctuations in the profile) across all scores" (p. 7). Twenty of the 54 students were identified as being in the deviant NDS range, as shown in Table 19. Seven of the 20 were seniors and 11 had dropped out of college. Six S did not return questionnaires, so were unidentifiable on this status variable.

Insert Table 19 about here

Comparison of the original groups in which the Ss were involved

shows data that may suggest additional study. The four original groups were labeled as Immediate Feedback (IF), Delayed Feedback (DF), Non Video (NV), and Control (C). Those who were in the IF counseling group showed positive effects over time. Twelve of the 13 members of this group scored in the normal range on the NDS. Table 20 shows the group comparisons.

Insert Table 20 about here

The original study did not provide NDS scores on the TSCS so there was no opportunity to make a pre-post comparison. However, a summary statement in the original study refers to the group profiles.

> All four groups present self-concept profiles that are somewhat deviant and undesirable. In personal correspondence Fitts stated, "This would certainly suggest that their self-concepts may help to explain their underachievement and in this sense the initial self-concept profiles are exactly what one would expect." (Valine, 1970, p. 50)

The homogeneity of the groups initially does not appear to hold for the present study. The evidence available may suggest that changes occurred among the groups because of the different counseling approaches used and that immediate video feedback is a technique that has the potential of effecting changes in a positive direction.

Summary

Students who by definition are underachievers can succeed in a college environment. Evidence indicates that those who attained senior level generally have a self-concept statistically more positive than those who for various reasons terminated their college experiences.

Group data often reflect little change because individuals within the group are changing in opposite directions. Although the original study showed no significant differences among groups that were counseled, when self-concepts are compared individually there appears to be both positive and negative effects over time. These effects became evident and were present in the responses on the post TSCS scores. Goodstein (1967) stated,

> it can be noted that there may be incubation effects which have important consequences for the outcomes of counseling and that complete reliance upon criteria for the measures obtained immediately after the termination of counseling may give a distorted view of the outcome of that counseling experience. (p. 436)

If Goodstein's view is correct--and some results of the present study support his statement--there continues to be need for longitudinal studies of counseling experiences.

More students who remained at Georgia Southwestern College attained senior standing than those who transferred. For whatever reason the transfer occurred, there may be a feeling of security in remaining at the same institution through the college experience. This eliminates the readjustment concern and possible feelings of rejection that may contribute to dropout. Starr, Betz, and Menne (1972) found differences between dropouts and nondropouts on how the student perceived his acceptance by faculty and other students. The nondropouts held the most positive attitude.

Several statistically significant effects are evident. However, there is no consistent pattern identifying those who continue in college as

possessing a more positive self-concept than those who may terminate. Analysis of the data generated by this study raises several questions. Do some students continue out of determination and external pressure to graduate, but in the process do not like themselves? Do colleges assume they have been successful if a student is kept in college, and that they have failed if a student drops out? For what purpose does a student drop out? What is the effect on the self-concept of the student who stays in college, but who may desire another choice if it were open without the stigma of having failed?

The student identified as an underachiever can succeed in the academic world. However, the developmental process during the college years may be a maturing experience, whether four years are completed or the person chooses to drop out. The process may be a positive experience in either case.

There may be need to look more closely at "college readiness." Are there variables that can be identified as indicating college success other than the traditional high school scholastic record and the student's PFAG? A careful look at the self-concept of an entering freshman in college may provide additional data as a basis for appropriate student development services. This may be a more urgent need with the advent of the "new student."

The student who enrolls in college as a result of external pressures may desire an opportunity to explore his goals in an appropriate setting. If he chooses to drop out, he should be provided support that he has other options which enhance gaining and/or maintaining a positive self-concept.

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TABLE 1

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table,
for Dependent Variable Total p

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob > F	R-Sq.
Regression	11	32840.165	2985.470	2.591	0.018	0.479
Error	31	35718.021	1152.194			
Total	42	68558.186				

Source	DF	Sequential SS	F Value	Prob > F
Group	3	1755.538	0.508	0.684
Status	1	318.250	0.276	0.603
Disp	1	510.500	0.443	0.510
Educ	4	30072.957	6.525	0.0009
Employ	2	182.920	0.079	0.923

Source	DF	Partial SS	F Value	Prob > F
Group	3	4714.304	1.364	0.271
Status	1	404.896	0.351	0.558
Disp	1	129.913	0.113	0.739
Educ	4	28913.483	6.274	0.001
Employ	2	182.920	0.079	0.923

TABLE 2

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table
for Dependent Variable Row 1

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob F	R-Sq.
Regression	11	4099.734	372.703	2.485	0.023	0.469
Error	31	4648.545	149.953			
Total	42	8748.279				

Source	DF	Sequential SS	F Value	Prob F
Group	3	288.279	0.641	0.598
Status	1	24.459	0.163	0.689
Disp	1	31.806	0.212	0.648
Educ	4	3653.554	6.091	0.001
Employ	2	101.636	0.339	0.720

Source	DF	Partial SS	F Value	Prob F
Group	3	675.484	1.502	0.233
Status	1	165.386	1.103	0.302
Disp	1	12.578	0.084	0.774
Educ	4	3460.869	5.770	0.002
Employ	2	101.636	0.339	0.720

TABLE 3

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table,
for Dependent Variable Row 2

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob > F	R-Sq.
Regression	11	3666.389	3333.308	1.716	0.116	0.379
Error	31	6020.309	194.204			
Total	42	9686.698				

Source	DF	Sequential SS	F Value	Prob > F
Group	3	260.299	0.447	0.725
Status	1	292.434	1.506	0.229
Disp	1	212.167	1.093	0.304
Educ	4	2892.534	3.724	0.014
Employ	2	8.955	0.023	0.978

Source	DF	Partial SS	F Value	Prob > F
Group	3	477.366	0.819	0.504
Status	1	3.677	0.019	0.892
Disp	1	32.110	0.165	0.687
Educ	4	2836.544	3.652	0.015
Employ	2	8.955	0.023	0.978

TABLE 4

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table,
for Dependent Variable Row 3

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob > F	R-Sq.
Regression	11	4275.210	388.655	2.703	0.015	0.490
Error	31	4458.232	143.814			
Total	42	8733.442				

Source	DF	Sequential SS	F Value	Prob > F
Group	3	349.165	0.809	0.501
Status	1	32.313	0.225	0.639
Disp	1	5.706	0.397	0.843
Educ	4	3856.329	6.704	0.0008
Employ	2	31.698	0.110	0.896

Source	DF	Partial SS	F Value	Prob > F
Group	3	474.313	1.099	0.365
Status	1	84.259	0.586	0.450
Disp	1	4.774	0.033	0.857
Educ	4	3698.640	6.430	0.0009
Employ	2	31.698	0.110	0.896

TABLE 5

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table
for Dependent Variable Col A

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob > F	R-Sq.
Regression	11	1437.198	130.654	1.954	0.070	0.409
Error	31	2073.314	66.881			
Total	42	3510.512				

Source	DF	Sequential SS	F Value	Prob > F
Group	3	52.516	0.262	0.853
Status	1	0.189	0.003	0.958
Disp	1	6.591	0.099	0.756
Educ	4	1307.698	4.888	0.004
Employ	2	70.204	0.525	0.602

Source	DF	Partial SS	F Value	Prob > F
Group	3	350.921	1.749	0.176
Status	1	66.249	0.991	0.328
Disp	1	46.541	0.696	0.411
Educ	4	1188.330	4.442	0.006
Employ	2	70.204	0.525	0.602

TABLE 6

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table
for Dependent Variable Col B

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob F	R-Sq.
Regression	11	1243.545	113.050	2.606	0.018	0.480
Error	31	1345.060	43.389			
Total	42	2588.605				

Source	DF	Sequential SS	F Value	Prob F
Group	3	138.279	1.602	0.380
Status	1	0.317	0.007	0.933
Disp	1	87.962	2.027	0.165
Educ	4	888.907	5.122	0.003
Employ	2	128.081	1.476	0.243

Source	DF	Partial SS	F Value	Prob F
Group	3	277.503	2.132	0.115
Status	1	24.368	0.562	0.459
Disp	1	43.825	1.010	0.323
Educ	4	812.015	4.679	0.005
Employ	2	128.081	1.476	0.243

TABLE 7

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table
for Dependent Variable Col C

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob F	R-Sq.
Regression	11	1627.337	147.940	2.004	0.063	0.416
Error	31	2288.338	73.817			
Total	42	3915.674				

Source	DF	Sequential SS	F Value	Prob F
Group	3	151.526	0.684	0.571
Status	1	0.275	0.004	0.952
Disp	1	86.929	1.178	0.286
Educ	4	1355.069	4.589	0.005
Employ	2	33.538	0.227	0.800

Source	DF	Partial SS	F Value	Prob F
Group	3	170.906	0.772	0.521
Status	1	40.333	0.546	0.465
Disp	1	67.336	0.912	0.347
Educ	4	1333.669	4.517	0.006
Employ	2	33.538	0.227	0.800

TABLE 8

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table
for Dependent Variable Col D

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob F	R-Sq.
Regression	11	1932.592	175.690	1.611	0.144	0.364
Error	31	3381.269	109.073			
Total	42	5313.860				

Source	DF	Sequential SS	F Value	Prob F
Group	3	224.667	0.687	0.570
Status	1	79.690	0.731	0.399
Disp	1	16.187	0.148	0.703
Educ	4	1578.543	3.618	0.016
Employ	2	33.504	0.154	0.859

Source	DF	Partial SS	F Value	Prob F
Group	3	144.546	0.442	0.728
Status	1	0.333	0.003	0.956
Disp	1	0.011	0.000	0.992
Educ	4	1573.414	3.606	0.016
Employ	2	33.504	0.154	0.859

TABLE 9

Regression Analysis of TSCS Data, Goodness of Fit Status,
Regression Coefficients and Analysis of Variance Table
for Dependent Variable Col E

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob F	R-Sq.
Regression	11	1556.601	141.509	2.351	0.030	0.455
Error	31	1866.190	60.200			
Total	42	3422.791				

Source	DF	Sequential SS	F Value	Prob F
Group	3	101.342	0.561	0.648
Status	1	54.624	0.907	0.348
Disp	1	5.933	0.098	0.756
Educ	4	1359.550	5.646	0.002
Employ	2	35.151	0.292	0.753

Source	DF	Partial SS	F Value	Prob F
Group	3	228.081	1.263	0.304
Status	1	0.014	0.0002	0.988
Disp	1	8.332	0.138	0.712
Educ	4	1286.506	5.343	0.002
Employ	2	35.151	0.292	0.753

TABLE 10

Regression Analysis of Post TSCS Data with Pretest Total P Covariance Analysis of Variance Table, Regression Coefficients, and Statistics of Fit for Dependent Variable Total P

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob >F	R-Sq.
Regression	12	50129.464	4177.455	6.800	0.0001	0.731
Error	30	18428.722	614.291			
Total	42	68558.186				

Source	DF	Sequential SS	F Value	Prob>F
Total 1	1	31234.528	50.846	0.0001
Educ	4	10720.581	4.363	0.007
Group	3	6626.826	3.401	0.030
Status	1	1574.030	2.562	0.120
Disp	1	17.097	0.028	0.869
Employ	2	316.402	0.258	0.778

Source	DF	Partial SS	F Value	Prob>F
Total 1	1	17289.299	28.145	0.0001
Educ	4	12734.841	5.183	0.003
Group	3	5997.380	3.254	0.035
Status	1	1493.594	2.431	0.129
Disp	1	0.297	0.0005	0.983
Emloy	2	316.402	0.258	0.778

TABLE 11

Regression Analysis of Post TSCS Data with Pretest Total P Covariance Analysis of Variance Table, Regression Coefficients, and Statistics of Fit for Dependent Variable Row 1

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob >F	R-Sq.
Regression	12	5559.857	463.321	4.359	0.0007	0.636
Error	30	3188.422	106.281			
Total	42	8748.279				

Source	DF	Sequential SS	F Value	Prob >F
Total 1	1	2969.693	27.942	0.0001
Educ	4	1313.881	3.091	0.030
Group	3	770.648	2.417	0.085
Status	1	441.958	4.158	0.050
Disp	1	3.821	0.036	0.851
Employ	2	59.856	0.282	0.760

Source	DF	Partial SS	F Value	Prob >F
Total 1	1	1460.123	13.738	0.0009
Educ	4	1635.388	3.847	0.012
Group	3	785.940	2.465	0.081
Status	1	330.230	3.107	0.088
Disp	1	0.006	0.000	0.994
Employ	2	59.856	0.282	0.760

TABLE 12

Regression Analysis of Post TSCS Data with Pretest Total P Covariance

Analysis of Variance Table, Regression Coefficients, and

Statistics of Fit for Dependent Variable Row 2

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob > F	R-Sq.
Regression	12	5532.290	461.024	3.329	0.004	0.571
Error	30	4154.408	138.480			
Total	42	9686.698				

Source	DF	Sequential SS	F Value	Prob > F
Total 1	1	3059.687	22.095	0.0001
Educ	4	1587.137	2.865	0.040
Group	3	830.002	1.998	0.134
Status	1	5.590	0.040	0.842
Disp	1	8.647	0.062	0.804
Employ	2	41.226	0.149	0.863

Source	DF	Partial SS	F Value	Prob > F
Total 1	1	1865.901	13.474	0.0009
Educ	4	1265.292	2.284	0.083
Group	3	722.146	1.738	0.179
Status	1	18.107	0.131	0.720
Disp	1	3.011	0.022	0.884
Employ	2	41.226	0.149	0.863

TABLE 13

Regression Analysis of Post TSCS Data with Pretest Total P Covariance Analysis of Variance Table, Regression Coefficients, and Statistics of Fit for Dependent Variable Row 3

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob >F	R-Sq.
Regression	12	6783.331	565.278	8.696	0.0001	0.777
Error	30	1950.111	65.004			
Total	42	8733.442				

Source	DF	Sequential SS	F Value	Prob >F
Total 1	1	4478.768	68.900	0.0001
Educ	4	1352.651	5.202	0.003
Group	3	587.094	3.011	0.045
Status	1	265.266	4.081	0.052
Disp	1	0.578	0.009	0.926
Emplcy	2	98.973	0.761	0.520

Source	DF	Partial SS	F Value	Prob >F
Total 1	1	2508.121	38.584	0.0001
Educ	4	1718.426	6.609	0.0009
Group	3	530.725	2.722	0.061
Status	1	263.075	4.047	0.533
Disp	1	5.547	0.085	0.772
Employ	2	98.973	0.761	0.520

TABLE 14

Regression Analysis of Post TSCS Data with Pretest Total P Covariance Analysis of Variance Table, Regression Coefficients, and Statistics of Fit for Dependent Variable Col A

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob> F	R-Sq.
Regression	12	2523.880	210.323	6.395	0.000	0.719
Error	30	986.632	32.888			
Total	42	3510.512				

Source	DF	Sequential SS	F Value	Prob >F
Total 1	1	1538.300	46.774	0.000
Educ	4	267.032	2.030	0.115
Group	3	470.334	4.767	0.008
Status	1	181.605	5.522	0.026
Disp	1	28.913	0.879	0.356
Employ	2	37.697	0.573	0.575

Source	DF	Partial SS	F Value	Prob >F
Total 1	1	1086.682	33.042	0.000
Educ	4	521.967	3.968	0.011
Group	3	486.905	4.935	0.007
Status	1	162.616	4.944	0.034
Disp	1	14.528	0.442	0.511
Employ	2	37.697	0.573	0.575

TABLE 15

Regression Analysis of Post TSCS Data with Pretest Total P Covariance Analysis of Variance Table, Regression Coefficients, and Statistics of Fit for Dependent Variable Col B

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob>F	R-Sq.
Regression	12	1632.265	136.022	4.267	0.001	0.631
Error	30	956.339	31.878			
Total	42	2588.605				

Source	DF	Sequential SS	F Value	Prob>F
Total 1	1	614.417	19.274	0.000
Educ	4	365.639	2.867	0.040
Group	3	366.373	3.831	0.019
Status	1	70.201	2.202	0.148
Disp	1	43.657	1.369	0.251
Employ	2	171.978	2.697	0.082

Source	DF	Partial SS	F Value	Prob>F
Total 1	1	388.720	12.194	0.002
Educ	4	445.063	3.490	0.018
Group	3	272.240	2.847	0.053
Status	1	59.206	1.857	0.183
Disp	1	70.169	2.201	0.148
Employ	2	171.978	2.697	0.082

TABLE 16

Regression Analysis of Post TSCS Data with Pretest Total P Covariance Analysis of Variance Table, Regression Coefficients, and Statistics of Fit for Dependent Variable Col C

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob>F	R-Sq.
Regression	12	2095.606	174.634	2.878	0.009	0.535
Error	30	1820.068	60.669			
Total	42	3915.674				

Source	DF	Sequential SS	F Value	Prob>F
Total 1	1	1149.766	18.951	0.000
Educ	4	693.537	2.858	0.040
Group	3	125.939	0.692	0.567
Status	1	78.454	1.293	0.264
Disp	1	34.422	0.567	0.457
Employ	2	13.488	0.111	0.895

Source	DF	Partial SS	F Value	Prob>F
Total 1	1	468.269	7.718	0.009
Educ	4	703.302	2.898	0.038
Group	3	133.583	0.734	0.543
Status	1	87.770	1.447	0.238
Disp	1	38.618	0.637	0.431
Employ	2	13.488	0.111	0.895

TABLE 17

Regression Analysis of Post TSCS Data with Pretest Total P Covariance

Analysis of Variance Table, Regression Coefficients, and

Statistics of Fit for Dependent Variable Col D

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob > F	R-Sq.
Regression	12	2954.091	246.174	3.130	0.006	0.556
Error	30	2359.769	78.659			
Total	42	5313.860				

Source	DF	Sequential SS	F Value	Prob > F
Total 1	1	1872.619	23.807	0.000
Educ	4	663.276	2.108	0.104
Group	3	317.551	1.346	0.278
Status	1	18.833	0.239	0.628
Disp	1	3.153	0.040	0.843
Employ	2	78.661	0.500	0.617

Source	DF	Partial SS	F Value	Prob > F
Total 1	1	1021.500	12.986	0.001
Educ	4	632.675	2.011	0.118
Group	3	247.478	1.049	0.386
Status	1	26.252	0.334	0.568
Disp	1	7.776	0.099	0.755
Employ	2	78.661	0.500	0.617

TABLE 18

Regression Analysis of Post TSCS Data with Pretest Total P Covariance

Analysis of Variance Table, Regression Coefficients, and

Statistics of Fit for Dependent Variable Col E

Source	DF	Sum of Sqs.	Mean Sq.	F Value	Prob>F	R-Sq.
Regression	12	2192.017	182.668	4.453	0.001	0.640
Error	30	1230.773	41.026			
Total	42	3422.791				

Source	DF	Sequential SS	F Value	Prob >F
Total 1	1	1263.260	30.792	0.000
Educ	4	560.515	3.416	0.020
Group	3	330.664	2.687	0.063
Status	1	21.365	0.521	0.476
Disp	1	1.622	0.040	0.844
Employ	2	14.590	0.178	0.839

Source	DF	Partial SS	F Value	Prob >F
Total 1	1	635.417	15.488	0.000
Educ	4	615.771	3.752	0.014
Group	3	332.654	2.703	0.062
Status	1	13.750	0.335	0.567
Disp	1	0.353	0.009	0.927
Employ	2	14.590	0.178	0.839

TABLE 19

Normal and Deviant NDS for Seniors and Dropouts

	Normal Range	Deviant Range
Seniors	18	7
Dropouts	12	11
Other[1]	4	2
Total	34	20

[1]Questionnaire data incomplete

TABLE 20

Normal and Deviant NDS by Group

	Normal Range	Deviant Range
IF	12	1
DF	7	6
NV	8	5
C	7	8
Total	34	20